

(C) WPI / DERWENT

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AP - JP19870254767 19871012

CPY - CHIY

- NIKN

DC - E36

DR - 1532-S

FS - CPI

IC - C01B33/10

MC - E31-P06B N02-F02

M3 - [01] B114 B720 B752 B760 C017 C800 C804 C805 C806 C807 M411 M720 M903  
M904 N266 N363 N412 N441 N515; R03423-P; 1704-X 1724-X 1711-X 1714-X

- [02] A678 C810 M411 M730 M903 Q421; 1704-X 1724-X 1711-X 1714-X

PA - (CHIY) CHIYODA CHEM ENG CONSTR CO

- (NIKN) NIPPON KOKAN KK

PN - JP1100011 A 19890418 DW198921 008pp

PR - JP19870254767 19871012

XA - C1989-069585

XIC - C01B-033/10

AB - J01100011 Industrial prodn. process of trichlorosilane comprises producing trichlorosilane from tetrachlorosilane and hydrogen in presence of catalyst where Pt. Gp. metal(s) and silicides of the metals is supported. At least two switching type regenerative ceramic reactors are used, where hydrogen gas is heated to 800 - 1100 deg.C and supplied to end (a) of reactor (A), while mixt. of tetrachlorosilane and hydrogen at low temp. is supplied from the other end (b) of other reactor (B) heated by reserved heat, heated mixt. is let out from opposite end (c) of (B) and supplied to end (a) of (A) and mixed and reacted with heated hydrogen, and cooled at regenerative part of (A) so heat is recovered and prod. is let out from other end (d) (A).

- USE/ADVANTAGE - Trichlorosilane of high purity can be produced on industrial level. Corrosion is prevented by using special catalyst and ceramic reactors (so reaction temp. is lowered and time for reaction is shortened) so impurity derived from corrosion is not mixed in

CN - R03423-P

DRL - 1704-X 1724-X 1711-X 1714-X

IW - TRI CHLORO SILANE INDUSTRIAL PRODUCE REACT TETRA CHLORO SILANE  
HYDROGEN PRESENCE PLATINUM GROUP METAL CATALYST SWITCH TYPE  
REGENERATE

CERAMIC REACTOR

IKW - TRI CHLORO SILANE INDUSTRIAL PRODUCE REACT TETRA CHLORO SILANE  
HYDROGEN PRESENCE PLATINUM GROUP METAL CATALYST SWITCH TYPE  
REGENERATE

CERAMIC REACTOR

NC - 001

OPD - 1987-10-12

ORD - 1989-04-18

PAW - (CHIY) CHIYODA CHEM ENG CONSTR CO  
- (NIKN) NIPPON KOKAN KK

TI - Tri:chloro-silane industrial prodn. - by reacting tetra:chloro-silane and hydrogen in presence of platinum gp metal catalyst using switching type regenerative ceramic reactors